Appendix G: TMDL Tables

Table G - 1. Summary Schedule for TMDL Development[2]

PROJECT	WATERBODY(S)	POLLUTANT/ STRESSOR	Projected Start Date	Current Projected Completion Date		
				TMDL Report	TMDL with Implementation Plan	Basin Plan Amendment
Alamo River Silt/ Sediment	Alamo River	Silt/Sediment	January 1998	August 2000	March 2001	Completed June 2001
Alamo River Pesticide	Alamo River	Pesticides	January 2005	June 2008	January 2009	June 2011
Alamo River Selenium	Alamo River	Selenium	January 2005	April 2008	April 2009	June 2010
New River Silt/ Sediment	New River	Silt/Sediment	June 2000	November 2001	November 2001	Completed June 2002
New River Pesticide	New River	Pesticides	July 2005	December 2008	December 2009	November 2011
New River Pathogen	New River	Pathogens/Bacteria	July 1999	August 2000	April 2001	Completed October 2001
New River Nutrients	New River	Nutrients				
New River Dissolved Oxygen	New River	Dissolved Oxygen	July 2003	November 2003	November 2003	May 2005
New River Trash	New River	Trash	May 2003	October 2003	October 2003	March 2005
New River Chloroform	New River	Chloroform	July 2007			June 2011

[2] This is not a commitment to complete work. The commitments are made in fund source specific workplans.

PROJECT	WATERBODY(S)	POLLUTANT/ STRESSOR	Projected Start Date	Current Projected Completion Date		
				TMDL Report	TMDL with Implementation Plan	Basin Plan Amendment
Chloroform						
New River Toluene	New River	Toluene	July 2007			November 2011
New River p-Cymene	New River	p-Cymene	July 2006			June 2009
New River 1,2,4-trimethylbenzene	New River	1,2,4-trimethylbenzene	July 2006			November 2009
New River M,p,-Xylene	New River	M,p-Xylene	July 2005			June 2008
New River o-Xylene	New River	o-Xylene	July 2005			November 2008
New River p-DCB	New River	p-DCB	July 2006			June 2010
Coachella Valley Stormwater Channel Pathogen	Coachella Valley Stormwater Channel	Pathogens-Bacteria	January 2002	June 2004	November 2004	November 2005
Imperial Valley Drains Sediment/ Silt	Imperial Valley Drains	Sediment/Silt	July 2001	June 2003	May 2003	November 2004
Imperial Valley Drains Selenium	Imperial Valley Drains	Selenium	January 2003	June 2008	November 2008	November 2010
Imperial Valley Drains Pesticides	Imperial Valley Drains	Pesticides	January 2005	June 2009	November 2009	November 2011
Palo Verde	Palo Verde	Pathogens	January 2002	March 2003	April 2003	November 2003

PROJECT	WATERBODY(S)	POLLUTANT/ STRESSOR	Projected Start Date	Current Projected Completion Date		
				TMDL Report	TMDL with Implementation Plan	Basin Plan Amendment
Pathogen	Outfall Drain					
Salton Sea Nutrients	Salton Sea	Nutrients	November 2001	March 2003	April 2003	March 2006
Salton Sea Salts	Salton Sea	Salts	January 2004	January 2012	June 2012	November 2013
Salton Sea Selenium	Salton Sea	Selenium	January 2005	January 2009	June 2009	November 2010

Table G - 2. Detailed Schedules of TMDL Activities (next 5 Years)

TMDL Project	**Alamo River Silt/Sediment**		**Alamo River Pesticide**		**Alamo River Selenium**	
Waterbody(s)	Alamo River		Alamo River		Alamo River	
Watershed Name	Salton Sea Transboundary WMA		Salton Sea Transboundary WMA		Salton Sea Transboundary WMA	
Hydrologic Unit	#723.10		#723.10		#723.10	
Pollutant(s) /Stressor(s)	Silt/Sediment		Pesticide		Selenium	
Stakeholder Participation	Medium		High		Medium	
Program Integration	NPDES WW; NPDES SW; NPS, SWAMP		NPDES SW , NPS SWAMP		NPS, SWAMP, NPDES WW, NPDES SW	
Interagency Coordination	USFWS; CalF&G, Salton Sea Authority, DWR		DPR, USFWS, CalF&G, Salton Sea Authority, DWR		USFWS, CalF&G, Salton Sea Authority, DWR	
Activity dates	**Start**	**End**	**Start**	**End**	**Start**	**End**
TMDL Development	1998	2001	2003	2011	2006	2012
Implementation Planning	1998	2002	2005	2009	2006	2012
Basin Planning	2001	2002	2005	2011	2006	2012
TMDL Implementation	2002	2011 and beyond	2011	2021 and beyond	2006	2012 and beyond

TMDL Project	New River Silt/Sediment		New River Pesticide		New River Pathogen	
Waterbody(s)	New River		New River		New River	
Watershed Name	Salton Sea Transboundary WMA		Salton Sea Transboundary WMA		Salton Sea Transboundary WMA	
Hydrologic Unit	#723.10		#723.10		#723.10	
Pollutant(s) /Stressor(s)	Silt/Sediment		Pesticide		Selenium	
Stakeholder Participation	Medium		High		Medium	
Program Integration	NPDES WW; NPDES SW; NPS, SWAMP		NPDES SW , NPS SWAMP		NPS, SWAMP, NPDES WW, NPDES SW	
Interagency Coordination	USFWS; CalF&G, Salton Sea Authority, DWR, IBWC, USEPA		DPR, USFWS, CalF&G, Salton Sea Authority, DWR, IBWC, USEPA		USFWS, CalF&G, Salton Sea Authority, DWR, IBWC, USEPA	
Activity dates	**Start**	**End**	**Start**	**End**	**Start**	**End**
TMDL Development	2000	2002	2005	2011	1999	2001
Implementation Planning	2000	2001	2005	2009	1999	2001
Basin Planning	2000	2002	2005	2011	1999	2002
TMDL Implementation	2003	2011 and beyond	2011	2021 and beyond	2003	2001 and beyond

TMDL Project	New River Nutrients		New River Dissolved Oxygen		New River Trash	
Waterbody(s)	New River		New River		NewRiver	
Watershed Name	Salton Sea Transboundary WMA		Salton Sea Transboundary WMA		Salton Sea Transboundary WMA	
Hydrologic Unit	#723.10		#723.10		#723.10	
Pollutant(s) /Stressor(s)	Nutrients		Dissolved Oxygen		Trash	
Stakeholder Participation	Medium		High		High	
Program Integration	NPDES WW; NPDES SW; NPS, SWAMP		NPDES SW, NPS, NPDES WW, SWAMP		NPDES SW, NPS, NPDES WW, SWAMP	
Interagency Coordination	USFWS; CalF&G, Salton Sea Authority, DWR, IBWC, USEPA		DPR, USFWS, CalF&G, Salton Sea Authority, DWR, IBWC, USEPA		DPR, USFWS, CalF&G, Salton Sea Authority, DWR, IBWC, USEPA	
Activity dates	**Start**	**End**	**Start**	**End**	**Start**	**End**
TMDL Development			2003	2004	2003	2004
Implementation Planning			2003	2004	2003	2004
Basin Planning			2003	2006	2003	2006
TMDL Implementation			2006	2006 and beyond	2006	2006 and beyond

TMDL Project	New River Chloroform		New River Toluene		New River p-Cymene	
Waterbody(s)	New River		New River		NewRiver	
Watershed Name	Salton Sea Transboundary WMA		Salton Sea Transboundary WMA		Salton Sea Transboundary WMA	
Hydrologic Unit	#723.10		#723.10		#723.10	
Pollutant(s) /Stressor(s)	Chloroform		Toluene		p-Cymene	
Stakeholder Participation	High		High		High	
Program Integration	NPDES WW; NPDES SW; NPS, SWAMP		NPDES SW, NPS, NPDES WW, SWAMP		NPDES SW, NPS, NPDES WW, SWAMP	
Interagency Coordination	USFWS; CalF&G, Salton Sea Authority, DWR, IBWC, USEPA		DPR, USFWS, CalF&G, Salton Sea Authority, DWR, IBWC, USEPA		DPR, USFWS, CalF&G, Salton Sea Authority, DWR, IBWC, USEPA	
Activity dates	**Start**	**End**	**Start**	**End**	**Start**	**End**
TMDL Development	2004	2006	2004	2006	2004	2006
Implementation Planning						
Basin Planning						
TMDL Implementation	2006	2006 and beyond	2006	2006 and beyond	2006	2006 and beyond

TMDL Project	New River 1,2,4-trimethylbenzene		New River M,p,-Xylene		New River o-Xylene		New River p-DCB	
Waterbody(s)	New River		New River		NewRiver		NewRiver	
Watershed Name	Salton Sea Transboundary WMA		Salton Sea Transboundary WMA		Salton Sea Transboundary WMA		Salton Sea Transboundary WMA	
Hydrologic Unit	#723.10		#723.10		#723.10		#723.10	
Pollutant(s) /Stressor(s)	1,2,4-trimethylbenzene		M,p-Xylene		o-Xylene		p-DCB	
Stakeholder Participation	High		High		High		High	
Program Integration	NPDES WW; NPDES SW; NPS, SWAMP		NPDES SW, NPS, NPDES WW, SWAMP		NPDES SW, NPS, NPDES WW, SWAMP		NPDES SW, NPS, NPDES WW, SWAMP	
Interagency Coordination	USFWS; CalF&G, Salton Sea Authority, DWR, IBWC, USEPA		DPR, USFWS, CalF&G, Salton Sea Authority, DWR, IBWC, USEPA		DPR, USFWS, CalF&G, Salton Sea Authority, DWR, IBWC, USEPA		DPR, USFWS, CalF&G, Salton Sea Authority, DWR, IBWC, USEPA	
Activity dates	**Start**	**End**	**Start**	**End**	**Start**	**End**	**Start**	**End**
TMDL Development	2004	2006	2004	2006	2004	2006	2004	2006
Implementation Planning								
Basin Planning								
TMDL Implementation								

TMDL Project	Imperial Valley Drains Sediment/Silt		Imperial Valley Drains Selenium		Imperial Valley Drains Pesticides	
Waterbody(s)	Imperial Valley Drains		Imperial Valley Drains		Imperial Valley Drains	
Watershed Name	Salton Sea Transboundary WMA		Salton Sea Transboundary WMA		Salton Sea Transboundary WMA	
Hydrologic Unit	#723.10		#723.10		#723.10	
Pollutant(s) /Stressor(s)	Sediment/Silt		Selenium		Pesticides	
Stakeholder Participation	Medium		Medium		Medium	
Program Integration	NPDES WW; NPDES SW; NPS, SWAMP		NPDES SW, NPS, NPDES WW, SWAMP		NPS, SWAMP, NPDES WW, NPDES SW	
Interagency Coordination	USFWS; CalF&G, Salton Sea Authority, DWR		USFWS, CalF&G, Salton Sea Authority, DWR		USFWS, CalF&G, Salton Sea Authority, DWR, DPR,	
Activity dates	**Start**	**End**	**Start**	**End**	**Start**	**End**
TMDL Development	2002	2004			2006	2011
Implementation Planning	2002	2004			2006	2011
Basin Planning	2002	2005			2006	2011
TMDL Implementation	2005	2015 and beyond			2011	2021 and beyond

TMDL Project	Salton Sea Nutrients		Salton Sea Salinity		Salton Sea Selenium	
Waterbody(s)	Salton Sea		Salton Sea		Salton Sea	
Watershed Name	Salton Sea Transboundary WMA		Salton Sea Transboundary WMA		Salton Sea Transboundary WMA	
Hydrologic Unit	#728.00		#728.00		#728.00	
Pollutant(s) /Stressor(s)	Nutrients		Salts		Selenium	
Stakeholder Participation	High		Medium		Medium	
Program Integration	NPDES WW; NPDES SW; NPS, SWAMP		NPDES SW, NPS, NPDES WW, SWAMP		NPS, SWAMP, NPDES WW, NPDES SW	
Interagency Coordination	USFWS; CalF&G, Salton Sea Authority, DWR, USBR, IBWC		USFWS, CalF&G, Salton Sea Authority, DWR, USBR, IBWC		USFWS, CalF&G, Salton Sea Authority, DWR, USBR, IBWC	
Activity dates	**Start**	**End**	**Start**	**End**	**Start**	**End**
TMDL Development	2001	2004				
Implementation Planning	2001	2005				
Basin Planning	2001	2006				
TMDL Implementation	2006	2016 and beyond				

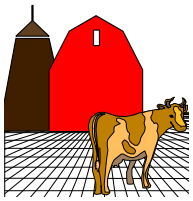
TMDL Project	Palo Verde Pathogen		Coachella Valley Stormwater Channel Pathogen	
{PRIVATE }Waterbody(s)	Palo Verde Outfall Drain		Coachella Valley Stormwater Channel	
Watershed Name	Lower Colorado River WMA		Salton Sea Transboundary WMA	
Hydrologic Unit	#715.40		#719.47	
Pollutant(s) /Stressor(s)	Pathogens		Pathogens	
Stakeholder Participation	Medium		Medium	
Program Integration	NPDES WW; NPDES SW; NPS, SWAMP		NPS,SWAMP, NPDES WW, NPDES SW	
Interagency Coordination	USFWS; CalF&G		USFWS, CalF&G, Salton Sea Authority, DWR	
Activity dates	**Start**	**End**	**Start**	**End**
TMDL Development	2000	2005	2002	2005
Implementation Planning	2002	2004	2003	2004
Basin Planning	2002	2005	2003	2006
TMDL Implementation	2005	2015 and beyond	2006	2016 and beyond

Legend:

Program Integration
NPDES Wastewater=NPDES WW
NPDES Stormwater=NPDES SS
Nonpoint Source=NPS
Monitoring and Assessment=SWAMP

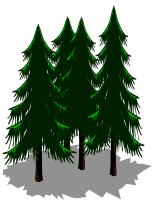
Interagency Coordination
California Department of Fish and Game=CalF&G
California Department of Pesticide Regulation=DPR
California Department of Water Resources=DWR
United States Fish and Wildlife Service=USFWS
United States Bureau of Re=USBR
International Boundary and Water Commission=IBWC
Salton Sea Authority=Salton Sea Authority

Appendix H: California's Nonpoint Source Management Measures



California's MMs to address agricultural sources of NPS pollution in California:

1A. Erosion and Sediment Control
1B. Facility Wastewater and Runoff from Confined Animal Facilities
1C. Nutrient Management
1D. Pesticide Management
1E. Grazing Management
1F. Irrigation Water Management
1G. Education/Outreach



California's MMs to address silvicultural sources of nonpoin pollution:

2A. Preharvest Planning
2B. Streamside Management Areas
2C. Road Construction/Reconstruction
2D. Road Management
2E. Timber Harvesting
2F. Site Preparation/Forest Regeneration
2G. Fire Management
2H. Revegetation of Disturbed Areas
2I. Forest Chemical Management
2J. Wetlands Forest
2K. Postharvest Evaluation
2L. Education/Outreach

California's MMs to address urban sources of nonpoint pollution:

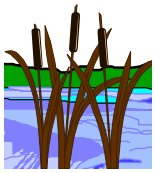
3.1 Runoff from Developing Areas
A. Watershed Protection
B. Site Development
C. New Development
3.2 Runoff from Construction Sites
A. Construction Site Erosion and Sediment Control
B. Construction Site Chemical Control
3.3 Runoff from Existing Development
A. Existing Development
3.4 Onsite Disposal Systems (OSDSs)
A. New OSDSs
B. Operating OSDSs
3.5 Transportation Development (Roads, Highways, and Bridges)
A. Planning, Siting, and Developing Roads and Highways
B. Bridges
C. Construction Projects
D. Chemical Control
E. Operation and Maintenance
F. Road, Highway, and Bridge Runoff Systems
3.6 Education/Outreach
A. Pollution Prevention/Education: General Sources

California's marina and recreational boating MMs:

4.1 <u>Assessment, Siting and Design</u>
A. Water Quality Assessment
B. Marina Flushing
C. Habitat Assessment
D. Shoreline Stabilization
E. Storm Water Runoff
F. Fueling Station Design
G. Sewage Facilities
H. Waste Management Facilities
4.2 <u>Operation and Maintenance</u>
A. Solid Waste Control
B. Fish Waste Control
C. Liquid Material Control
D. Petroleum Control
E. Boat Cleaning and Maintenance
F. Maintenance of Sewage Facilities
G. Boat Operation
4.3 <u>Education/Outreach</u>

California's MMs to address sources of nonpoint pollution related to hydromodification activities:

Channelization/Channel Modification
Physical & Chemical Characteristics of Surface Waters
Instream & Riparian Habitat Restoration
Dams
Erosion & Sediment Control
Chemical & Pollutant Control
Protection of Surface Water Quality & Instream and Riparian Habitat
Streambank & Shoreline Erosion
Eroding Streambanks & Shorelines
5.4 Education/Outreach
A. Educational Programs



California's MMs to protect and restore wetlands and riparian areas and use vegetated treatment systems as means to control pollution from nonpoint sources:

Protection of Wetlands & Riparian Areas
Restoration of Wetlands & Riparian Areas
Vegetated Treatment Systems
6D. Education/Outreach

Appendix I: Nonpoint Source Tables

Table I - 1. Regional NPS Problems by Management Measure Category

Pollutant(s) impairing or threatening Beneficial Uses by Management Measure Category		
Watershed/waterbody	**Agriculture**	**Urban**
Salton Sea Transboundary Watershed/ Alamo River (52 miles)	Silt Selenium Pesticides	
Salton Sea Transboundary Watershed/ New River (60 miles)	Silt Pesticides Nutrients	Pathogens VOCs
Salton Sea Transboundary Watershed/ Imperial Valley Drains (1,305 miles)	Silt Selenium Pesticides	
Salton Sea Transboundary Watershed/ Salton Sea (220,000 saline lake acres)	Salt Nutrients Selenium	
Salton Sea Transboundary Watershed/ Coachella valley Stormwater Channel (20 miles)	Pathogens	Pathogens
Lower Colorado River Watershed/ Palo Verde Outfall Drain (16 miles)	Pathogens	Pathogens

Appendix J - Required Elements for Watershed-Based Plans as per CWA Section 319

To ensure that Section 319 projects make progress towards restoring waters impaired by nonpoint source pollution, U.S. EPA is requiring that all projects implemented with Section 319 funds must be consistent with watershed-based plans that include at least the elements listed below. U.S. EPA also requires that Section 319 funded projects implement activities to reduce pollutant loads consistent with an existing TMDL or a TMDL under development.

U.S. EPA believes that the nine required elements outlined below are critical to assure that public funds to address nonpoint source water pollution are used effectively. The watershed planning process is dynamic and iterative, and projects whose plans address each of these nine elements may proceed even though some of the information in the plan is imperfect and may need to be modified over time as information improves.

In California, a wide range of plans are being used to comply with the nine required elements, often in combination with each other. Examples of plans that are being used to in California include local watershed plans, coordinated resource management plans, TMDL implementation plans, comprehensive conservation and management plans, RWQCB's Water Quality Control Plans (Basin Plans), and the RWQCB WMI Chapters under the WMI Integrated Plan, and combinations thereof. Applicants should work with the RWQCBs to verify that the combination of plans have the nine elements. Those elements that are not included in existing plans will need to be incorporated into the plans, as appropriate, to be eligible for Section 319 funds.

The required watershed-based plan elements are as follows:

a. An identification of the causes and sources or groups of similar sources that will need to be controlled to achieve the load reductions estimated in this watershed-based plan.

b. An estimate of the load reductions expected for the management measures described under paragraph (c) below.

c. A description of the NPS management measures that will need to be implemented to achieve the load reductions estimated under paragraph (b) above and an identification (using a map or a description) of the critical areas in which those measures will be needed to implement this plan.

d. An estimate of the amounts of technical and financial assistance needed, associated costs, and/or the sources and authorities that will be relied upon, to implement this plan.

e. An information/education component that will be used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing, and implementing the NPS management measures that will be implemented.

f. A schedule for implementing the NPS management measures identified in this plan that is reasonably expeditious.

g. A description of interim, measurable milestones for determining whether NPS management measures or other control actions are being implemented.

h. A set of criteria that can be used to determine whether loading reductions are being achieved over time and substantial progress is being made toward attaining water quality standards and, if not, the criteria for determining whether this watershed-based plan needs to be revised or, if a NPS TMDL has been established, whether the NPS TMDL needs to be revised.

i. A monitoring component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established under item (h) immediately above.

You may also refer to the full text of the Section 319 guidelines that is available on U. S. EPA's NPS website at: http://www.epa.gov/fedrgstr/EPA-WATER/2003/October/Day-23/w26755.htm

Table I - 2. Nonpoint Source Pollution Control Short Term Objectives

Objective	Goal that the Objective Fulfills	2002	2003	2004	2005	2006	Management Measures	Funded in FY 2003/2004 ?
Achieve Alamo River Sediment TMDL Implementation milestones	Goals 1 & 3	X	X	X	X	X	1A, 1F, 1G	
Achieve New River Sediment TMDL Implementation milestones	Goals 1 & 3		X	X	X	X	1A, 1F, 1G	
Achieve Imperial Valley Drains Sediment TMDL Implementation milestones	Goals 1 & 3			X	X	X	1A, 1F, 1G	
Achieve New River Pathogens TMDL Implementation milestones	Goal 2	X	X	X	X	X		
Develop Salton Sea Nutrients TMDL Implementation Plan	Goals 3 & 4	X	X	X				
Implement Salton Sea Nutrients TMDL	Goals 1, 3 & 4				X	X	1C, 1F, 1G	
Develop Selenium TMDL Implementation Plan	Goals 3 & 4				X	X		
Develop pesticides TMDLs Implementation Plan	Goals 3 & 4					X		
Conduct comprehensive water quality monitoring, assessment, and reporting	Goals 3 & 6	X	X	X	X	X		
Determine the quantitative performance of sediment control management measures	Goals 1, 3, & 6	X	X	X	X	X		
Tracking and oversight of implementation of the Tier 1 Imperial Co. Farm Bureau Watershed Program	Goals 1, 3, 4, & 6	X	X	X	X	X	1A, 1C, 1D, 1F, 1G	
Provide financial and technical assistance for the development of demonstrations of BMPs	Goals 1, 3, 4, 6 & 7	X	X	X	X	X	1A, 1C, 1D, 1F, 1G	

Objective	Goal that the Objective Fulfills	2002	2003	2004	2005	2006	Management Measures	Funded in FY 2002/2003?
Provide financial and tech. assistance for the development of watershed plans	Goals 1, 3, 4, & 7	X	X	X	X	X	1A, 1C, 1D, 1F, 1G	
Develop and implement an effective regulatory, educational, and assistance structure to address pollution from septic systems	Goals 1, 4, 5 & 7	X	X	X	X	X	3, 4 B	
Develop comprehensive ground water maps of drinking water aquifers and potential sources of pollution and assess data gaps	Goals 1 & 5	X	X	X				

Table I – 3. Education, Outreach, AND Technical Assistance

Target Audience	Education/Outreach/ Assistance Goals	Product(s)	Staff or Contract	Management Measure Category
Salton Sea Nutrients TMDL Technical Advisory Committee (TAC)	- Provide RB staff with technical assistance on TMDL Implementation	- Monthly meetings - Formal TAC recommendations	Staff	Agriculture 1A, 1F, 1G
Imperial County Farm Bureau	- Effective implementation of the Farm Bureau NPS Initiative to attain measurable water quality improvement	- Coordination with the Farm Bureau Watershed Coordinator - Regular tracking reports - Verification of tracking reports - Coordination with each of 10 “drainshed” groups established as part of the Farm Bureau Plan	Staff/ Contract	Agriculture
Imperial and Coachella Valleys Growers and Irrigators	- TMDL implementation requirements - Sediment and nutrients control BMPs	- Grower-targeted video - Irrigator-targeted video, handbook, and technical assistance software and public forums on BMPs - Demonstration project using irrigation strategies aimed at reducing polluted runoff water	Contract	Agriculture 1A, 1C, 1G
Citizens Congressional Task Force for the New River	- Volunteer monitoring	- Volunteer monitoring kits and guidebooks for local high schools	Contract	Wetlands 6C, 6D
Nationwide	- Provide information about New River problems/issues	- 1-hour informational documentary to be aired on PBS about the New River	Contract	Agriculture 1G

Target Audience	Education/Outreach/ Assistance Goals	Product(s)	Staff or Contract	Management Measure Category
Web-savvy public	- Provide up-to-date information on NPS issues, TMDLs, water quality reports	- Regularly updated webpage	Staff	

Table I – 4. Waivers of Waste Discharge

Waiver No./Name/Description	Management Measures	Review Schedule
93-004/Minor Dredging Operations/where soil is non-toxic and discharged to land	Hydromodification	January 2008

Table I – 5. Key Partners

Existing or Potential Partner Agency:	MOU/MAA Title Content of potential/revised agreements:	Target date for review (existing) or adoption (potential):	Management Measure Categories:
U.S. Bureau of Land Management	MOU between U.S. BLM and RWQCB 7	No review necessary	5.1B, 5.3A, 5.4A, 6A, 6B, 6D
Imperial Irrigation District	Sediment Control Water Quality Monitoring	December 2002	1A, 1C, 1D
Natural Resources Conservation Service (NRCS)	Shared priorities and goals	State Board is working on MOU	1A, 1B, 1C, 1E, 1F, 1G
Imperial County Farm Bureau	Commitment to implement Watershed Program	December 2002	1A, 1C, 1D, 1F, 1G

Table I – 6. Targeted EQIP Projects

Project Description	Geographic Location	Management Measures
Erosion Control Projects	Salton Sea Transboundary Watershed	Agriculture
Erosion and nutrient management education/outreach projects	Salton Sea Transboundary Watershed	Agriculture
Nutrient management projects	Salton Sea Transboundary Watershed	Agriculture

Table I – 7. Proposed SFY 2002/03 Resource Allocation

Task	Product	Management Measure(s)	Geographic Area	Funding Source	Cost PYs/Dollars
1. Alamo and New Rivers and Imperial Valley Ag. Drains Sediment TMDL Implementation Planning and Monitoring	- Monthly monitoring at strategic stations in the Alamo and New Rivers and Imperial Valley Ag. Drains - Quarterly data reports - Year-end data report	1A, 1G, 1F	Salton Sea Transboundary Watershed	State	1.0 PY
2. Lab analysis services for Alamo and New Rivers and Imperial Valley Ag. Drains Sediment TMDLs	- Lab analysis		Salton Sea Transboundary Watershed	State	$100,000 (0.8 PY)
3. Alamo River Sediment TMDL Implementation	- Coordination with Imperial County Farm Bureau to implement NPS Watershed Program - Regular tracking reports - Technical assistance to local “drainshed” groups in the formation of their plans - Tracking of management measure implementation	1A, 1G, 1F	Salton Sea Transboundary Watershed	Fed 319 (h)	0.7 PY

Task	Product	Management Measure(s)	Geographic Area	Funding Source	Cost PYs/Dollars
4. New River Pathogens TMDL Implementation Planning and Monitoring	- Coordination with NPDES program to address point source facilities in the region - Modified NPDES permits if needed		Salton Sea Transboundary Watershed	State	0.2 PY
5. Salton Sea Nutrients TMDL Implementation Planning and Monitoring	- Stakeholder groups, research on nutrient control technology, year-end report - Field monitoring activities	1C, 1F, 1G	Salton Sea Transboundary Watershed	State Fed 319 (h)	0.4 PY 0.3 PY
6. Palo Verde Outfall Drain Pathogen TMDL Monitoring	- Field activities and lab services		Lower Colorado River Watershed	State	$100,000 (0.8 PY)
7. NPS Program Management	- Participation in the NPS Roundtables, Conferences, and Workshops - Review of NPS Program documents	1A, 1C, 1D, 1F, 1G	Regionwide	Fed 319 (h) State	0.5 PY 0.5 PY
8. Fed 319 (h) and State Prop 13 Grant Solicitation	- Technical assistance and stakeholder outreach for completion of 319 (h) and Prop 13 Proposals	1A, 1C, 1D, 1F, 1G	Regionwide	Fed 319 (h) State	0.2 PY 0.2 PY

Task	Product	Management Measure(s)	Geographic Area	Funding Source	Cost PYs/Dollars
9. Fed 319 (h) and State Prop 13 Contract management	- Contract management of contracts awarded to contractors in the region	1A, 1C, 1D, 1F, 1G	Regionwide	Fed 319 (h) State	0.6 PY 0.2 PY
10. Public Education and Outreach to Promote TMDL Implementation	- Speak at stakeholder forums - Prepare outreach newsletters, bulletins about TMDL Implementation - Attend stakeholder conventions/meetings	1G	Regionwide	State	0.3 PY

TOTAL STAFF COST = 6.7 PY = $837,500

Table I – 8. NPS Resource Need 2002/03 Through 2004/2005

Task	Product	Management Measure(s)	Geographic Area	State Fiscal Year	Est. Cost PYs/Dollars
1. Alamo and New Rivers and Imperial Valley Ag. Drains Sediment TMDL Implementation Planning and Monitoring	- Monthly monitoring at strategic stations in the Alamo and New Rivers and Imperial Valley Ag. Drains - Quarterly data reports - Year-end data report	1A, 1G, 1f	Salton Sea Transboundary Watershed	2002/03 2003/04 2004/05	1.0 PY 0.5 PY 0.5 PY
2. Lab analysis services for Alamo and New Rivers and Imperial Valley Ag. Drains Sediment TMDLs	- Lab analysis		Salton Sea Transboundary Watershed	2002/03 2003/04 2004/05	$100,000 (0.8 PY) $50,000 (0.4 PY) $50,000 (0.4 PY)
3. Alamo River Sediment TMDL Implementation	- Coordination with Imperial County Farm Bureau to implement NPS Watershed Program - Regular tracking reports - Technical assistance to local "drainshed" groups in the formation of their plans - Tracking of management measure implementation	1A, 1G, 1F	Salton Sea Transboundary Watershed	2002/03 2003/04 2004/05	0.7 PY 0.7 PY 0.7 PY

Task	Product	Management Measure(s)	Geographic Area	State Fiscal Year	Est. Cost PYs/Dollars
4. New River Pathogens TMDL Implementation Planning and Monitoring	- Coordination with NPDES program to address point source facilities in the region - Modified NPDES permits if needed		Salton Sea Transboundary Watershed	2002/03 2003/04 2004/05	0.2 PY 0.2 PY 0.2 PY
5. Salton Sea Nutrients TMDL Implementation Planning and Monitoring	- Stakeholder groups, research on nutrient control technology, year-end report - Field monitoring activities	1C, 1F, 1G	Salton Sea Transboundary Watershed	2002/03 2003/04 2004/05	0.7 PY 0.7 PY 0.7 PY
6. Palo Verde Outfall Drain Pathogen TMDL Monitoring	- Field activities and lab services		Lower Colorado River Watershed	2002/03 2003/04 2004/05	$100,000 $100,000 $100,000
7. NPS Program Management	- Participation in the NPS Roundtables, Conferences, and Workshops - Review of NPS Program documents	1A, 1C, 1D, 1F, 1G	Regionwide	2002/03 2003/04 2004/05	1.0 PY 1.0 PY 1.0 PY

Task	Product	Management Measure(s)	Geographic Area	State Fiscal Year	Est. Cost PYs/Dollars
8. Fed 319 (h) and State Prop 13 Grant Solicitation	- Technical assistance and stakeholder outreach for completion of 319 (h) and Prop 13 Proposals	1A, 1C, 1D, 1F, 1G	Regionwide	2002/03 2003/04 2004/05	0.4 PY 0.4 PY 0.4 PY
9. Fed 319 (h) and State Prop 13 Contract management	- Contract management of contracts awarded to contractors in the region	1A, 1C, 1D, 1F, 1G	Regionwide	2002/03 2003/04 2004/05	 0.8 PY 0.8 PY 0.8 PY
10. Public Education and Outreach to Promote TMDL Implementation	- Speak at stakeholder forums - Prepare outreach newsletters, bulletins about TMDL Implementation - Attend stakeholder conventions/meetings	1G	Regionwide	2002/03 2003/04 2004/05	0.3 PY 0.3 PY 0.3 PY

TOTAL STAFF COST = 17.5 PY = $2,187,500

Table I – 9. Project/Needs/Activity Type and Description

Project/Needs/Activity Type and Description	Watersheds						
	Salton Sea Transboundary Watershed	Imperial Hydrologic Unit	New River	Whitewater Hydrologic Unit	High Desert Groundwater Basins	Palo Verde Outfall Drain	Region-wide
Implement BMPs/Improve Water Quality							
TMDL Implementation							A
Implement Agricultural Sedimentation/Erosion control Projects—could include projects that reduce inputs of sediments to receiving waters or that treat surface waters for pollutant	A						
Implement Nutrients Control Projects—could include projects that reduce inputs of nutrients to receiving waters or that treat surface waters for pollutant	A						
Implement Pesticides Control Projects—could include projects that reduce inputs of pesticides to receiving waters or that treat surface waters for pollutant	A		A				
Implement Wetlands Demonstration Projects—should focus on treatment of polluted agricultural drain water and/or New River water	A		A				
Implement Selenium Control Projects—could include projects that reduce inputs of Selenium to receiving waters or that treat surface waters for pollutant	B						
Groundwater Pollution Abatement Projects—projects that aim to protect groundwater aquifers and/or aim to remediate existing groundwater polltion	A			A	A		
Implement New River Dissolved Oxygen (DO) Improvement Projects—manmade structures to improve DO levels in the New River	B	B	B				
Implement New River Volatile Organic Compounds Control Projects	B	B	B				
Urban Nutrients Management	A						
Drain Erosion Control Projects	A	A	A				
Reduce Polluted Runoff from Animal Feeding Operations	B					A	
Habitat Restoration/Beneficial Use Enhancement							
Wildlife Habitat Restoration	A						

Project/Needs/Activity Type and Description		Watersheds						
		Salton Sea Transboundary Watershed	Imperial Hydrologic Unit	New River	Whitewater Hydrologic Unit	High Desert Groundwater Basins	Palo Verde Outfall Drain	Region-wide
Wetlands Restoration and Preservation (cleanup, buffer zones, purchases, management practices)		A		B				
Assess Loadings and Impacts								
Evaluate External and Internal Nutrients Loadings into the Salton Sea		A						
Evaluate Impacts of Irrigation Management Practices on Water Quality		A						
Investigate Eutrophication in the Salton Sea		A						
Research-Oriented Studies								
Evaluate which Management Practices are Most Effective for Irrigated Agriculture		A						
Evaluate the Effectiveness of Irrigated Agricultural Management Practices		A		A				
Monitoring								
Implement Citizens Monitoring		C		C				
Implement Pesticides Monitoring		B		B				
Implement Toxic Substances Monitoring		C		B				
Education and Outreach								
Farm Water Quality Planning Courses/Software—should include components that focus on current and future TMDL water quality issues		A	A					
Irrigator Training—should include components that focus on sediment water quality issues		A	A	A				
Implementation Education and Stakeholder Involvement—should include on-the-ground encouragement/coordination of discharger/landowner NPS implementation with reporting		A	A	A				
Education and Outreach								
Erosion and Nutrients Management Education Projects		A	A	A				
Watershed Planning								
GIS TMDL Implementation Tracking System		A	A			A	A	
Land Acquisition								
Increase Wetlands Acreage		B	B	B				

Appendix K: What is a WRAS?

Plans and strategies that will be considered as watershed restoration action strategies must include some reasonable portion of the following elements:

- identification of measurable environmental and programmatic goals;
- identification of sources of water pollution and the relative contribution of sources;
- implementation of pollution control and natural resource restoration measures (e.g., permit revisions, implementation of best management practices and buffer strips) to achieve clean water and other natural resource goals, especially measures which will achieve multiple environmental and public health benefits;
- schedules for implementation of needed restoration measures and identification of appropriate lead agencies to oversee implementation, maintenance, monitoring, and evaluation;
- implementation of total maximum daily loads (TMDLs) for pollutants exceeding state water quality standards;
- implementation of source water assessment and protection programs;
- needed monitoring and evaluation to assess progress towards achieving environmental and programmatic goals;
- funding plans to support the implementation and maintenance of needed restoration measures;
- a process for cross-agency (federal, state, interstate, tribal, and local) coordination to help implement watershed restoration action strategies; and
- a process for public involvement.

Appendix L: Hydrologic Units Contained in Sub-Regional Watersheds

Watershed Management Areas

Salton Sea Transboundary Watershed

Hydrologic Unit Code	Hydrologic Unit Name
719	Whitewater Hydrologic Unit
720	Clark Hydrologic Unit
721	West Salton Sea Hydrologic Unit
722	Anza Borrego Hydrologic Unit
723	Imperial Hydrologic Unit
724	Davies Hydrologic Unit
725	East Salton Sea Hydrologic Unit
726	Amos-Ogilby Hydrologic Unit
728	Salton Sea Hydrologic Unit

Desert Aquifers Watershed

Hydrologic Unit Code	Hydrologic Unit Name
701	Lucerne Hydrologic Unit
702	Johnson Hydrologic Unit
703	Bessemer Hydrologic Unit
704	Means Hydrologic Unit
705	Emerson Hydrologic Unit
706	Lavic Hydrologic Unit
707	Deadman Hydrologic Unit
708	Joshua Tree Hydrologic Unit
709	Dale Hydrologic Unit
710	Bristol Hydrologic Unit
711	Cadiz Hydrologic Unit
712	Ward Hydrologic Unit
713.40	Lanfair Hydrologic Area
717	Chuckwalla Hydrologic Unit
718	Hayfield Hydrologic Unit

Lower Colorado River Watershed

Hydrologic Unit Code	Hydrologic Unit Name
713 (except 713.40)	Piute Hydrologic Unit
714	Chemehuevi Hydrologic Unit
715	Colorado Hydrologic Unit
716	Rice Hydrologic Unit
727	Yuma Hydrologic Unit